

A marked up copy of claim 1 showing all changes made relative to the previous version of the claim, accompanies this paper on a separate sheet or sheets per 37 CFR § 1.121(c)(1)(ii).

#### REMARKS

The specification is objected to in that it lacks section headings as required by 37 CFR 1.77(b). Accordingly, appropriate headings have been provided by this amendment.

Claim 1 has been amended to delete reference numerals.

Claims 1 and 2 have been rejected under 35 USC 103(a) as being unpatentable over Hardies (US patent no. 4,015,165), in that it would have been obvious to replace the corrosion-resistant sleeves (8) with a skin of titanium nitride or chromium carbide in the claimed thicknesses.

Hardies teaches a lamp having molybdenum electrodes with a corrosion-resistant covering chosen from nickel, manganese nickel, nickel-plated brass, nickel-plated iron, chromium-plated iron, electroplated iron, platinum, gold, chromium, iridium and ruthenium (col. 1, lines 55-60). These materials are all either metals, metal alloys, or composite metallic structures.

In contrast to the teachings of the reference that the protective covering for the molybdenum electrodes must be a metal sleeve, Applicant provides a protective layer of either titanium nitride or chromium carbide, neither of which materials is a metal or metal alloy or composite metal, but rather are ceramic compounds.

Ceramics are compounds, that is, chemical combinations of a metallic element with a non-metallic element, such as oxygen, nitrogen or carbon. Such compounds have properties very different from those of metals. For example, ceramic materials are generally known for their mechanical toughness, especially in high

temperature applications, and for their electrical insulating properties.

Thus, ceramic materials would not be considered by the skilled artisan to be an obvious substitute for metals in any application, and particularly in an application where good electrical connection is required.

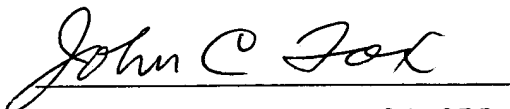
Moreover, it would not be obvious to select only titanium nitride and chromium carbide from among the universe of available ceramic materials, or even from among the many different nitrides and carbides which are known. Such choice was not arbitrary, but was made in order to obtain optimum properties for the particular application, including ability to form a highly corrosion-resistant coating on molybdenum by CVD, ability to form good welds to the coated electrodes, and ability to form good electrical contacts with the coated electrodes.

By logical extension, it would not be obvious to provide such materials in the claimed thicknesses, in order to provide sufficient corrosion protection, while still enabling the achievement of good welds and good electrical contacts.

Accordingly, it is felt that the rejection of claims 1 and 2 under 35 USC 103(a) is in error, and should be withdrawn.

In view of the foregoing, Applicant respectfully requests that the Examiner withdraw the rejections of record, allow all the pending claims, and find the present Application to be in condition for allowance.

Respectfully submitted,

A handwritten signature in cursive script, reading "John C. Fox", is written over a horizontal line.

John C. Fox, Reg. 24,975

Consulting Patent Attorney

MARKED-UP AMENDED CLAIMS

1. An electric lamp comprising  
a glass lamp vessel ~~(2)~~ which is closed in a gastight  
manner and in which an electric element ~~(3)~~ is accommodated,  
current conductors ~~(4)~~ connected to the electric element  
which each have an end portion ~~(5)~~ of molybdenum projecting to  
outside the lamp vessel, said end portion being provided with means  
for protection against oxidation,  
characterized in that the end portion ~~(5)~~ has a skin  
which is chosen from a group of materials formed by titanium  
nitride and chromium carbide.